

Title (en)

Semiconductor-integrated-circuit SRAM-cell array with single-ended current-sensing

Title (de)

Integrierte Halbleiterschaltung mit einer SRAM-Zellenmatrix mit einseitiger Stromabfühlschaltung

Title (fr)

Circuit intégré à semi-conducteurs comprenant un réseau de cellules SRAM avec circuit de détection de courant à entrée unique

Publication

EP 0685850 B1 20000726 (EN)

Application

EP 95303297 A 19950517

Priority

US 25074694 A 19940527

Abstract (en)

[origin: EP0685850A2] Each memory (200) cell in an SRAM array contains an auxiliary reading (MR1) transistor connected across one of the transistors (MP1) in each cell. A row read line (RRi) controls the ON-OFF condition of this auxiliary reading transistor. In addition, each cell has two access transistors (MW1,MW2) for connecting the cell to complementary column bit lines (Bj,Bj). The ON-OFF condition of both of these access transistors is controlled by a row write line (RWi). Each cell has two power nodes (N3,N4), one connected to a power source such as VDD and the other connected to a column detector line (Dj) that terminates in a current sensor. The state of the memory cell is sensed by this current sensor. In one embodiment, the power line that brings the voltage VDD to the cells is a column line; in another embodiment, it is a row line. Thus there are a total of four column lines and two row lines in the one embodiment, and a total of three column lines and three row lines in the other embodiment. <IMAGE>

IPC 1-7

G11C 11/412; **G11C 8/00**

IPC 8 full level

G11C 8/16 (2006.01); **H01L 21/8244** (2006.01); **H01L 27/10** (2006.01); **H01L 27/11** (2006.01)

CPC (source: EP KR US)

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EP 0685850 A2 19951206; **EP 0685850 A3 19951220**; **EP 0685850 B1 20000726**; DE 69518118 D1 20000831; DE 69518118 T2 20010531; JP 3349293 B2 20021120; JP H07335838 A 19951222; KR 950034798 A 19951228; US 5541874 A 19960730

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